



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/629,746

07/30/2003

Leonid Bravinski

92953-7

6812

22463 7590 06/25/2008

SMART AND BIGGAR
438 UNIVERSITY AVENUE
SUITE 1500 BOX 111
TORONTO, ON M5G2K8
CANADA

EXAMINER

SAFAVI, MICHAEL

ART UNIT

PAPER NUMBER

3637

MAIL DATE

DELIVERY MODE

06/25/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/629,746	Applicant(s) BRAVINSKI, LEONID	
	Examiner M. Safavi	Art Unit 3637	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) See Continuation Sheet is/are pending in the application.
- 4a) Of the above claim(s) 52 and 138-140 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) See Continuation Sheet is/are rejected.
- 7) ☒ Claim(s) 129 and 130 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/19/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

Continuation of Disposition of Claims: Claims pending in the application are 1-8,12,13,15,16,22-25,29-31,34,35,52,55,56,69,72-83,91-94,99-107,114,115,118 and 122-141.

Continuation of Disposition of Claims: Claims rejected are 1-8,12,13,15,16,22-25,29-31,34,35,55,56,69,72-83,91-94,99-107,114,115,118,122-128 and 131-141.

Claims

In response to Applicants inquiry at paragraph 3 on page 34 of the response, claim 52 has been withdrawn from consideration as to the merits as being directed to a non-elected species of the invention. It is not clear that claims 138-140 read upon the elected species of Fig. 4.

Claim Objections

Claims 7 and 93 are objected to under 37 CFR 1.75(a) because of the following:
Claim 7, lines 4-5 should read --toward said lower surface of said panel member--.
Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-8, 12, 13, 15, 16, 22-25, 29-31, 34, 35, 69, 72-74, 93, 103, 136, and 138-140 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, line 9, it is not clear as to what is being defined by "Intermediate a span of said panel member and said..." Line 18, "said at least one spaced structural supporting member" lacks antecedent basis within the claim. It is therefore, not clear as to what "said at least one spaced structural supporting member" refers.

Claim 136 appears dependent upon itself.

Claim 138, it is not clear as to how the formwork system possesses a support portion which comprises a connecting member positioned within the panel as well as a connector having a cap portion which provides “said exposed surface” and “assists in supporting said panel member”. The specification does not appear clear and complete as to such an arrangement.

Claim 139, it is not clear as to how the formwork system possesses a reinforcement portion interconnected to “said connecting member”. The specification does not appear clear and complete as to such an arrangement.

Claim 140, line 2, “said upper member” lacks antecedent basis within the claim. It is therefore, not clear as to what “said upper member” refers.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 127, 134, and 137-140 are rejected under 35 U.S.C. 102(b) as being anticipated by Caine '090. As for **claims 127, 134, and 137**, Caine '090 discloses, Figs. 1 and 5, a panel (D), reinforcement unit (B), and structural supporting member, (rib), (A) upon which reinforcement unit (B) is placed to support panel (D). The structural supporting member extends above the upper surface of the panel so that concrete can encase the supporting member. A plurality of reinforcements (B) are placed transversely above the panel with a portion, (upper surface thereof), above the upper surface of the panel with an extension portion resting on a surface of a transverse web of the support member (A). Support portion comprises connecting member (d) positioned within the panel and connector (E) having cap (portion around or beneath E) which serves as or has an exposed surface. Panel member (D) is held in compression between the upper member (B) and the connector (E).

Claims 127, 134-139, and 141 are rejected under 35 U.S.C. 102(b) as being anticipated by McDonald '024.

McDonald '024 discloses, Fig. 2, panel member 22, reinforcement unit 21 having strengthening member 21c and structural supporting member, (rib), 20a, 20b. Upper surface of panel 22 can be seen, (Fig. 7), as possessing a longitudinally oriented downwardly extending portion as along 22k, 22m, 22n, 22p. Support portion comprises connecting member 22q positioned within the panel and connector 22c having cap 22e which serves as or has an exposed surface.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 6, 8, 16, 25, 29-31, 72; 55, 94, 122; 75, 76, 78, 79, 80, 81; 91, 92, 104, 105, 106, 107; 99, 100; 118; 128, and 131 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caine '090 in view of Carroll '641.

As for **claims 1, 25, and 29**, Caine '090 discloses, Figs. 1 and 5, a panel (D), reinforcement unit (B), and structural supporting member, (rib), (A) upon which reinforcement unit (B) is placed to support panel (D). The structural supporting member extends above the upper surface of the panel so that concrete can encase the supporting member, (**claim 72**). A plurality of reinforcements (B) are placed transversely above the panel with a portion, (upper surface thereof), above the upper surface of the panel with an extension portion resting on a surface of a transverse web of the support member (A), (**claims 2-4, 6, 8, 30, and 31**). Caine does not appear to specifically present a foam panel member within the assembly.

However, Carroll '641 teaches application of polystyrene panels 13 within a composite floor assembly to provide for insulation therein. Carroll teaches utilization of a prepared form panel comprising the foam panel 13 and formboard 12, col. 4, lines 13-14 of Carroll. Therefore, to have provided the Caine '090 floor assembly with polystyrene as the or part of the panels (D), (i.e., either provide a polystyrene panel with panel D of

Caine so as to form a single form panel or replace panel D with a polystyrene panel), thus providing for insulation within the construction, would have been obvious to one having ordinary skill in the art at the time the invention was made as taught by Carroll '641.

Claims 55, 94, 122; 75-81; 91, 92, 104, 105, 106, 107; 99, 100, 102; 118; 128, and 131 are rejected under 35 U.S.C. 103(a) as being unpatentable over McDonald '024 in view of Carroll '641.

McDonald '024 discloses, Fig. 2, panel member 22, reinforcement unit 21 having strengthening member 21c and structural supporting member, (rib), 20a, 20b. Upper surface of panel 22 can be seen, (Fig. 7), as possessing a longitudinally oriented downwardly extending portion. McDonald does not appear to specifically present a foam panel member within the assembly.

However, Carroll '641 teaches application of polystyrene panels 13 within a composite floor assembly to provide for insulation therein. Carroll teaches utilization of a prepared form panel comprising the foam panel 13 and formboard 12, col. 4, lines 13-14 of Carroll. Therefore, to have provided the McDonald '024 floor assembly with polystyrene as the or part of the panels 22, (i.e., either provide a polystyrene panel with panel 22 of McDonald so as to form a single form panel or replace panel 22 with a polystyrene panel), thus providing for insulation within the construction, would have been obvious to one having ordinary skill in the art at the time the invention was made as taught by Carroll '641.

Claims 12, 13, and 69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caine '090 in view of Carroll '641 as applied to claims 6 and 72 and further in view of either of Martin '025 and Lathrop '723.

Each of Martin '025 and Lathrop '723 teaches application of channel beam support members 1 within a composite floor assembly. Therefore, to have provided the modified Caine '090 floor assembly with channel beams as the support members in place of the members (A), thus utilizing an alternate support member within the construction, would have been obvious to one having ordinary skill in the art at the time the invention was made as taught by either of Martin '025 and Lathrop '723. Providing openings along an upper web portion of the resulting channel supporting member to allow for attachment to the tie or extension means, (including d'), of Caine '090, would have been obvious to one having ordinary skill in the art at the time the invention was made as taught by Lathrop '723 as in Figs. 1 and 5.

Claims 15, 34, 35, 123, 124, 125; 82, 83; 132, and 133 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caine '090 in view of Carroll '641 as applied to claims 1, 80, and 128 and further in view of Lin '111.

Lin '111 discloses utilization of a foam roof panel component 3 having the upper and lower surfaces laminated with a polypropylene skin 1, 2. Therefore, to have provided the modified Caine '090 floor assembly polystyrene panels with the upper and lower surfaces laminated with a polypropylene skin, thus providing for a durable

covering for the structural foam, would have been obvious to one having ordinary skill in the art at the time the invention was made as taught by Lin '111.

Claims 82, 83; 132, and 133 are rejected under 35 U.S.C. 103(a) as being unpatentable over McDonald '024 in view of Carroll '641 as applied to claims 80 and 128 and further in view of Lin '111.

Lin '111 discloses utilization of a foam roof panel component 3 having the upper and lower surfaces laminated with a polypropylene skin 1, 2. Therefore, to have provided the modified McDonald '024 floor assembly polystyrene panels with the upper and lower surfaces laminated with a polypropylene skin, thus providing for a durable covering for the structural foam, would have been obvious to one having ordinary skill in the art at the time the invention was made as taught by Lin '111.

Claims 69; and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caine '090 in view Carroll '641 as applied to claims 72 and 55 and further in view of either of Staesina et al. '278 and Bodnar '724.

Each of Staesina et al. '278 and Bodnar '724 teaches providing apertures within the beam of a composite floor assembly to allow for bonding between the concrete and the beam. Therefore, to have provided the modified Caine '090 floor assembly with support beams having apertures within the web or flange portions thereof, thus allowing for bonding between the concrete and each respective beam, would have been obvious to one having ordinary skill in the art at the time the invention was made as taught by either of Staesina et al. and Bodnar.

Claims 69; and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caine '090 in view of Carroll '641 and either of Martin '025 and Lathrop '723 as applied to claims 12, 13, and 69 above, and further in view of Staresina et al. '278 and Bodnar '724.

Each of Staresina et al. '278 and Bodnar '724 teaches providing apertures within the beam of a composite floor assembly to allow for bonding between the concrete and the beam. Therefore, to have provided the modified Caine '090 floor assembly with support beams having apertures within the web or flange portions thereof, thus allowing for bonding between the concrete and each respective beam, would have been obvious to one having ordinary skill in the art at the time the invention was made as taught by either of Staresina et al. '278 and Bodnar.

Claims 56; and 115 are rejected under 35 U.S.C. 103(a) as being unpatentable over McDonald '024 in view of Carroll '641 as applied to claims 55 and 91 and further in view of either of Staresina et al. '278 and Bodnar '724.

Each of Staresina et al. '278 and Bodnar '724 teaches providing apertures within the beam of a composite floor assembly to allow for bonding between the concrete and the beam. Therefore, to have provided the McDonald '024 floor assembly with support beams having apertures within the web or flange portions thereof, thus allowing for bonding between the concrete and each respective beam, would have been obvious to

one having ordinary skill in the art at the time the invention was made as taught by either of Staresina et al. '278 and Bodnar.

Claim 126 is rejected under 35 U.S.C. 103(a) as being unpatentable over Caine '090 in view of Carroll '641 and Lin '111 as applied to claims 15 and further in view of either of St. Clair '487 and Stern et al. '356.

Each of St. Clair '487 and Stern et al. teach application of a polyethylene layer along at least one surface of a foam plastic panel, 24 on 22 of St. Clair and 12 on 17 of Stern et al. Therefore, to have provided the modified Caine '090 floor assembly polystyrene panels with the upper and lower surfaces laminated with a polypropylene skin, thus providing for a durable covering for the structural foam, would have been obvious to one having ordinary skill in the art at the time the invention was made as taught by Lin '111.

Claims 129 and 130 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 5, 7, 24, 73, 74, and 93 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 7 and 93 would be allowable if rewritten to overcome the objection(s) under 37 CFR 1.75(a), set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed March 17, 2008 have been fully considered but they are not persuasive. Examiner can only disagree that the weight of the concrete is fully supported by the layer of gypsum board of Carroll '641. When advancing the proposed modification of either of Caine and McDonald one having ordinary skill in the building construction art would apply the insulation of Carroll with or without the formboard 12. Carroll teaches utilization of a prepared formboard comprising the foam panel 13, col. 4, lines 13-14 of Carroll. Therefore, applying the board 12/13 of Carroll to the assembly of either of Caine and McDonald would certainly allow for formation of a concrete substrate. Therefore, Carroll teaches, adding a polystyrene panel to the formboard D of Caine or to the formboard 22 of McDonald which would provide any necessary support. In any event, Examiner does not see how or why the polystyrene panel of Carroll '641 itself could not support a load of concrete when forming the substrate (H) of Caine or the substrate 20c of McDonald.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to M. Safavi whose telephone number is (571) 272-7046. The examiner can normally be reached on Mon.-Fri., 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lanna Mai can be reached on (571) 272-6867. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

/M. Safavi/
Primary Examiner, Art Unit 3637

M. Safavi
June 10, 2008